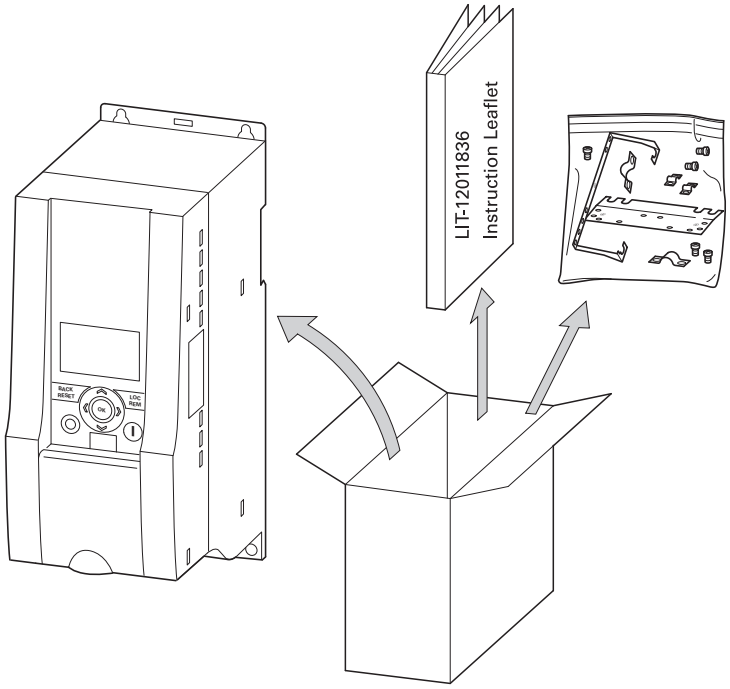
VSD Series II
Variable Speed Micro Drives (VSM II)
FS1–FS5

Electric Current! Danger to Life!
Only skilled or instructed persons may carry out the following operations.

VSD Series II
Variable Speed Micro Drives for Machinery Applications (FS1–FS5)

VSxxx0_, VSxxx2x4_, VSxxx2x3_, VSxxx4_, VSxxx5_

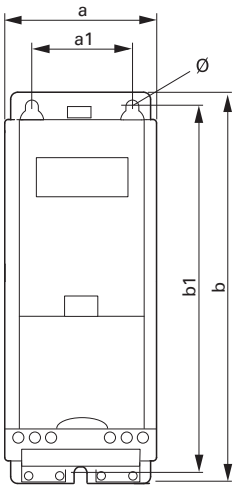


LIT-12011835
User Manual

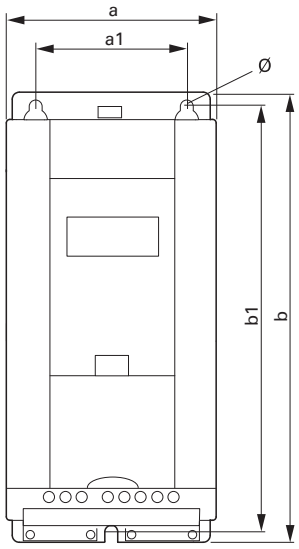
Please visit www.johnsoncontrols.com → HVAC sales → Variable Speed Drives or scan the QR code to download or view the complete user manual.

Johnson Controls

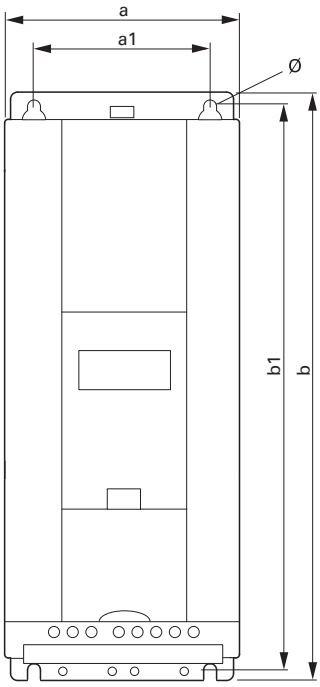
Dimensions and Weights



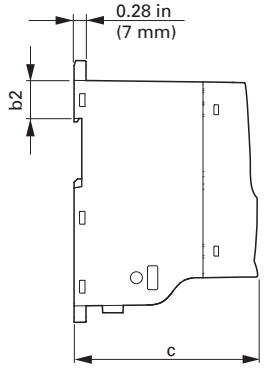
FS1

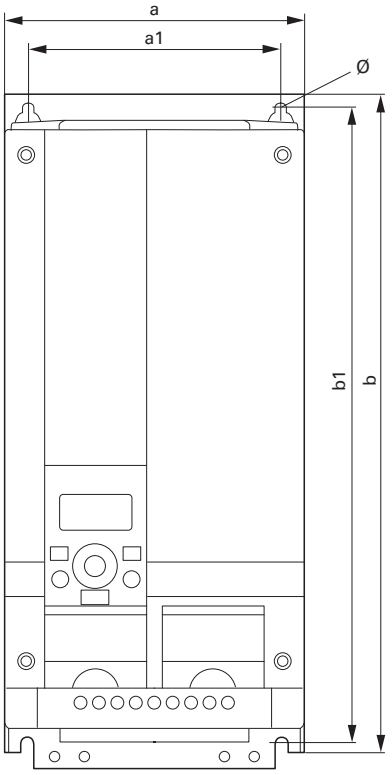


FS2

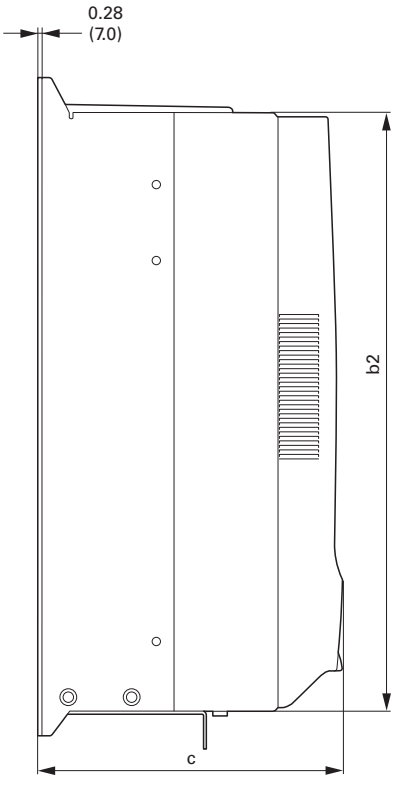


FS3

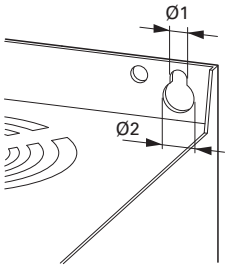


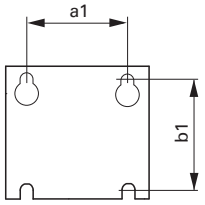


FS4



FS5





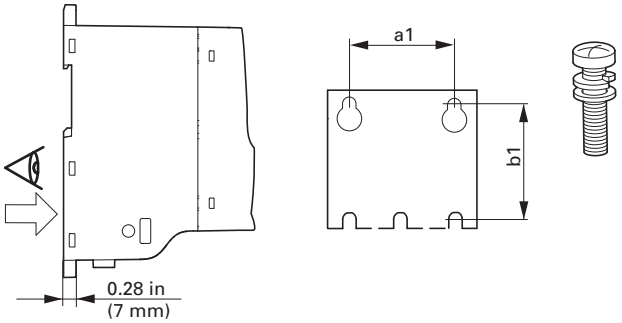
Dimensions and Frame Sizes

	Approximate Dimensions in inches (mm)								
Part Number	**a**	**a1**	**b**	**b1**	**b2**	**c**	**Ø, Ø1**	**Ø2**	**Installation Size**
VS1D7204B-M_ VS2D4204B-M_ VS2D8204B-M_	2.60 (66)	1.50 (38)	6.30 (160)	5.79 (147)	1.26 (32)	4.02 (102)	0.18 (4.5)	—	FS1
VS1D7203B-M_ VS2D4203B-M_ VS2D8203B-M_									
VS1D3403B-M_ VS1D9403B-M_ VS2D4403B-M_									
VS1D7004B-M_ VS2D4004B-M_ VS2D8004B-M_ VS3D7004B-M_	3.54 (90)	2.46 (62.5)	7.68 (195)	7.17 (182)	1.26 (32)	4.14 (105)	2.17 (5.5)	—	FS2
VS3D7204B-M_ VS4D8204B-M_ VS7D0204B-M_									
VS3D7203B-M_ VS4D8203B-M_ VS7D0203B-M_									
VS3D3403B-M_ VS4D3403B-M_ VS5D6403B-M_									
VS4D8004B-M_	3.94 (100)	2.95 (75)	9.96 (253)	9.53 (242)	1.34 (34)	4.41 (112)	2.17 (5.5)	—	FS3
VS9D6204B-M_									
VS011203B-M_									
VS7D6403B-M_ VS9D0403B-M_ VS012403B-M_ VS014403B-M_									
VS1D7503B-M_ VS2D7503B-M_ VS3D9503B-M_ VS6D1503B-M_ VS9D0503B-M_									
VS017203B-M_ VS025203B-M_	6.50 (165.0)	5.51 (140.0)	14.57 (370.0)	13.82 (351.0)	13.27 (337.0)	6.61 (168.0)	0.28 (7.0)	0.55 (14.0)	FS4
VS016403B-M_ VS023403B-M_									
VS031203B-M_ VS038203B-M_	6.50 (165.0)	5.51 (140.0)	14.57 (414.0)	13.82 (398.0)	15.08 (383.0)	8.07 (205.0)	0.28 (7.0)	0.55 (14.0)	FS5
VS031403B-M_ VS038403B-M_									

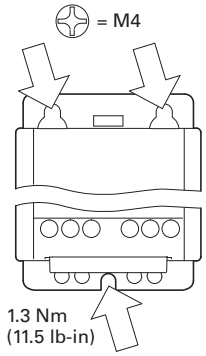
Note

1 in = 25.4 mm, 1 mm = 0.0394 in

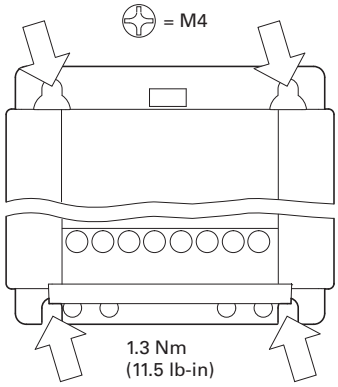
Mounting



	a1 mm [in]	b1 mm [in]	Mass kg [lb]	Torque Nm [ft-lb]	Mounting Screw
FS1	38 [1.5]	147 [5.79]	0.55 [1.2]	1.3 [0.95]	M4
FS2	62.5 [2.46]	182 [7.17]	0.7 [1.5]	1.3 [0.95]	M4
FS3	75 [2.95]	242 [9.53]	0.99 [2.2]	1.3 [0.95]	M5
FS4	140 [5.51]	351 [13.82]	8 [18.0]	4.6 [3.4]	M6
FS5	140 [5.51]	398 [13.82]	10 [22.0]	4.6 [3.4]	M6

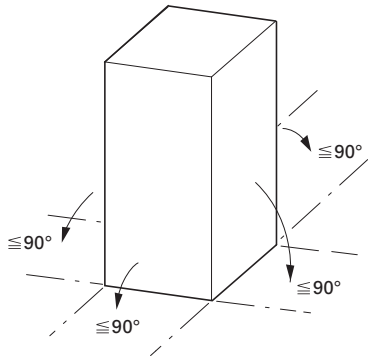


FS1, FS2

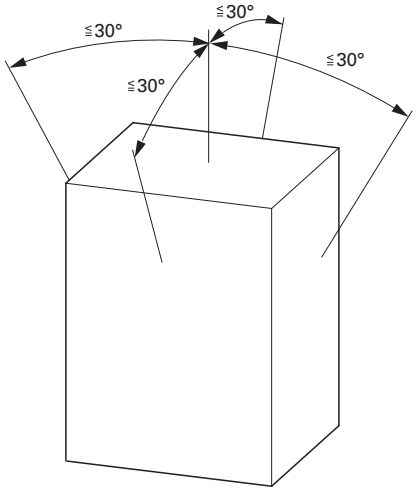


FS3–FS5

Mounting Positions

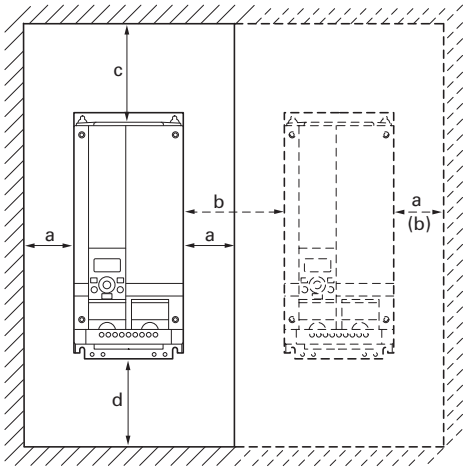


FS1–FS3

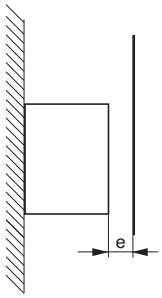


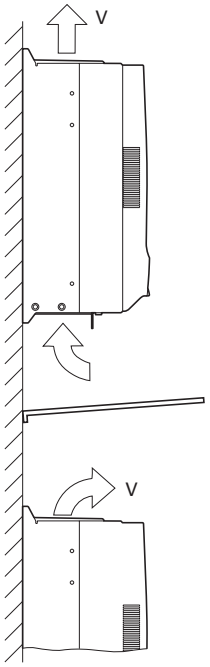
FS4, FS5

Air-Cooling Space



Minimum Clearance at the Front

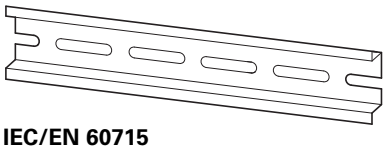




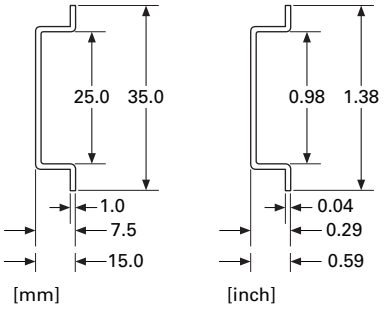
Minimum Clearance and Required Cooling Air

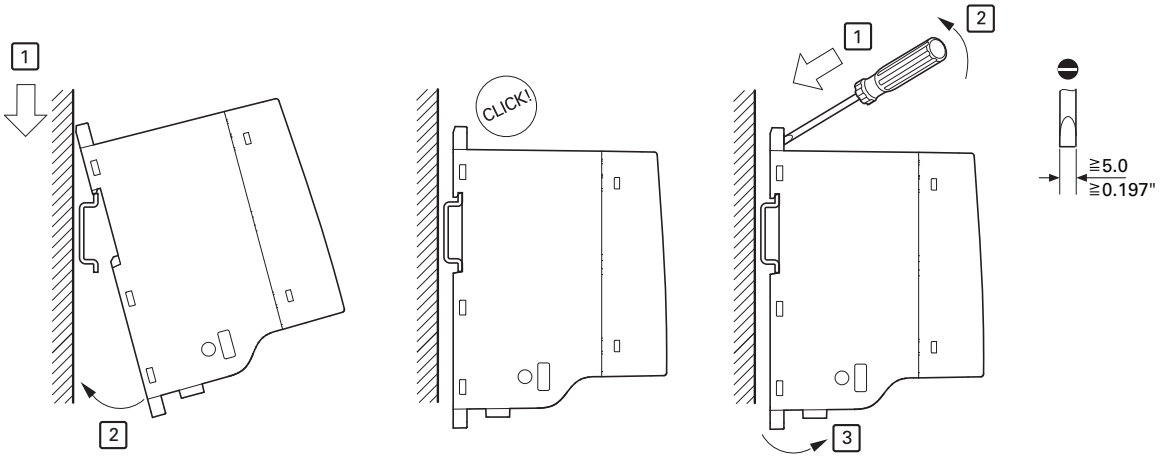
	a mm	b mm	c mm	d mm	e mm	V m^3/h
FS1	20	50	100	50	15	10
FS2	20	50	100	50	15	10
FS3	20	50	100	50	15	30
FS4	20	50	100	100	20	45
FS5	20	50	120	100	20	75

Mounting Positions

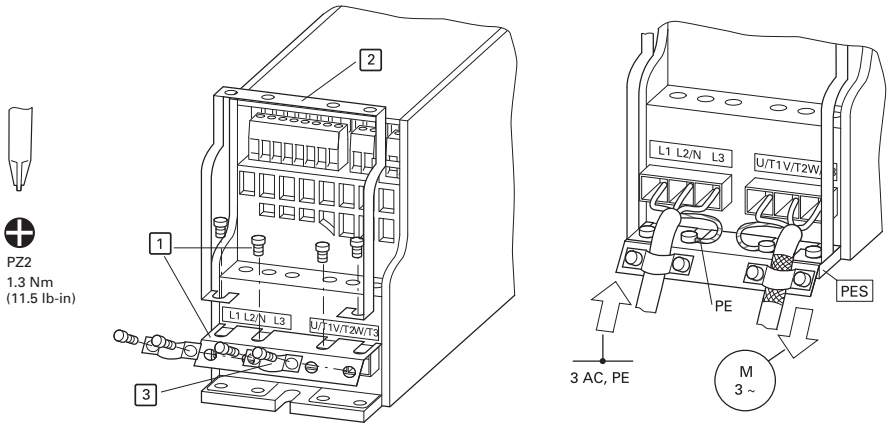


IEC/EN 60715

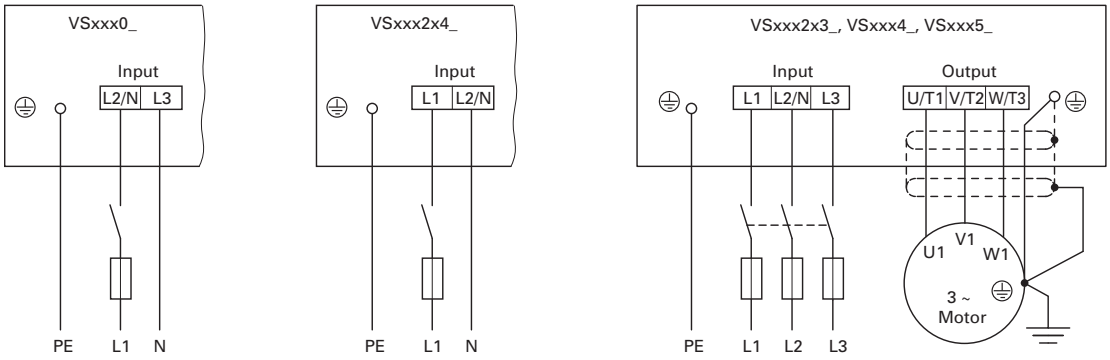




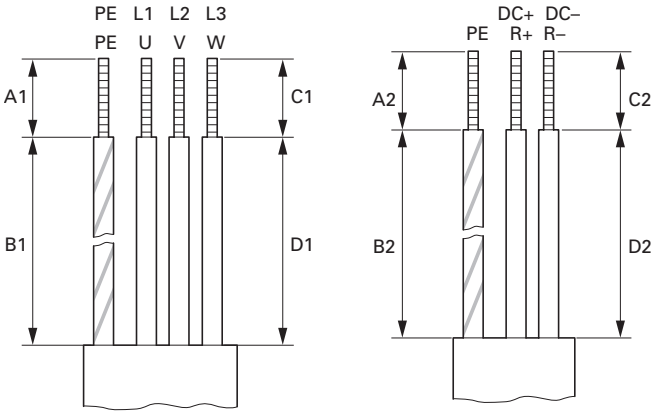
Warning!
Connect only in voltage-free state!



Connection to Power Section



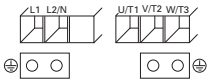
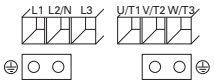
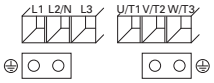
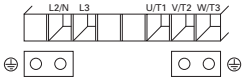
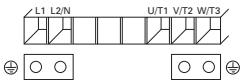
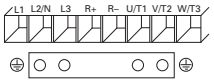
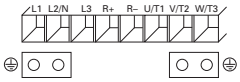
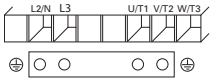
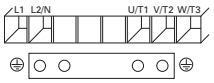
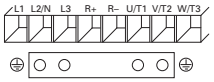
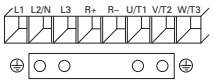
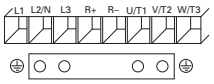
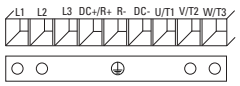
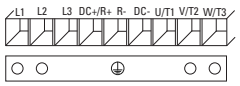
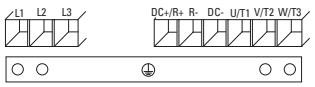
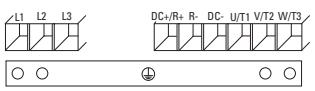
Connection in Power Section

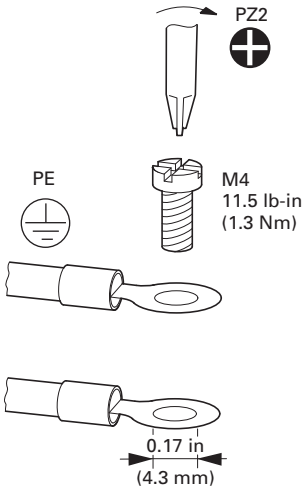


Stripping Lengths in the Power Section in inches (mm)

	Supply Voltage (Input) L1, L2, L3		PE ⏚		Motor (Output) U/T1, V/T2, W/T3		PE ⏚		DC-Link, Brake Resistor DC+/R+, R–, DC–		PE ⏚	
	C1	D1	A1	B1	C1	D1	A1	B1	C2	D2	A2	B2
FS1	0.30 (8.0)	0.80 (20.0)	0.30 (8.0)	1.40 (35.0)	0.30 (8.0)	0.80 (20.0)	0.30 (8.0)	1.40 (35.0)	0.30 (8.0)	0.80 (20.0)	0.30 (8.0)	1.40 (35.0)
FS2	0.30 (8.0)	0.80 (20.0)	0.30 (8.0)	1.40 (35.0)	0.30 (8.0)	0.80 (20.0)	0.30 (8.0)	1.40 (35.0)	0.30 (8.0)	0.80 (20.0)	0.30 (8.0)	1.40 (35.0)
FS3	0.30 (8.0)	0.80 (20.0)	0.30 (8.0)	1.40 (35.0)	0.30 (8.0)	0.80 (20.0)	0.30 (8.0)	1.40 (35.0)	0.30 (8.0)	0.80 (20.0)	0.30 (8.0)	1.40 (35.0)
FS4	0.30 (8.0)	1.60 (40.0)	0.30 (8.0)	1.20 (30.0)	0.30 (8.0)	2.00 (50.0)	0.30 (8.0)	1.20 (30.0)	0.30 (8.0)	1.60 (40.0)	0.30 (8.0)	1.60 (40.0)
FS5	0.30 (8.0)	1.60 (40.0)	0.30 (8.0)	1.20 (30.0)	0.30 (8.0)	2.00 (50.0)	0.30 (8.0)	1.20 (30.0)	0.30 (8.0)	2.00 (50.0)	0.30 (8.0)	2.00 (50.0)

Arrangement and Size of the Connection Terminals

	Part Numbers	M3 Nm	ft-lbs	mm	Terminal Configuration
FS1	VS1D7204B-M_ VS2D4204B-M_ VS2D8204B-M_	0.5–0.6	0.37–0.44	0.6 x 3.5	
	VS1D7203B-M_ VS2D4203B-M_ VS2D8203B-M_	0.5–0.6	0.37–0.44	0.6 x 3.5	
	VS1D3403B-M_ VS1D9403B-M_ VS2D4403B-M_	0.5–0.6	0.37–0.44	0.6 x 3.5	
FS2	VS1D7004B-M_ VS2D4004B-M_ VS2D8004B-M_ VS3D7004B-M_	0.5–0.6	0.37–0.44	0.6 x 3.5	
	VS3D7204B-M_ VS4D8204B-M_ VS7D0204B-M_	0.5–0.6	0.37–0.44	0.6 x 3.5	
	VS3D7203B-M_ VS4D8203B-M_ VS7D0203B-M_	0.5–0.6	0.37–0.44	0.6 x 3.5	
	VS3D3403B-M_ VS4D3403B-M_ VS5D6403B-M_	0.5–0.6	0.37–0.44	0.6 x 3.5	
FS3	VS4D8004B-M_	0.5–0.6	0.37–0.44	0.6 x 3.5	
	VS9D6204B-M_	0.5–0.6	0.37–0.44	0.6 x 3.5	
	VS011203B-M_	0.5–0.6	0.37–0.44	0.6 x 3.5	
	VS7D6403B-M_ VS9D0403B-M_ VS012403B-M_ VS014403B-M_	0.5–0.6	0.37–0.44	0.6 x 3.5	
	VS1D7503B-M_ VS2D7503B-M_ VS3D9503B-M_ VS6D1503B-M_ VS9D0503B-M_	0.5–0.6	0.37–0.44	0.6 x 3.5	
FS4	VS017203B-M_ VS025203B-M_	1.2–1.5	0.88–1.11	0.6 x 3.5	
	VS016403B-M_ VS023403B-M_	1.2–1.5	0.88–1.11	0.6 x 3.5	
FS5	VS031203B-M_ VS038203B-M_	1.2–1.5	0.88–1.11	0.6 x 3.5	
	VS031403B-M_ VS038403B-M_	1.2–1.5	0.88–1.11	0.6 x 3.5	

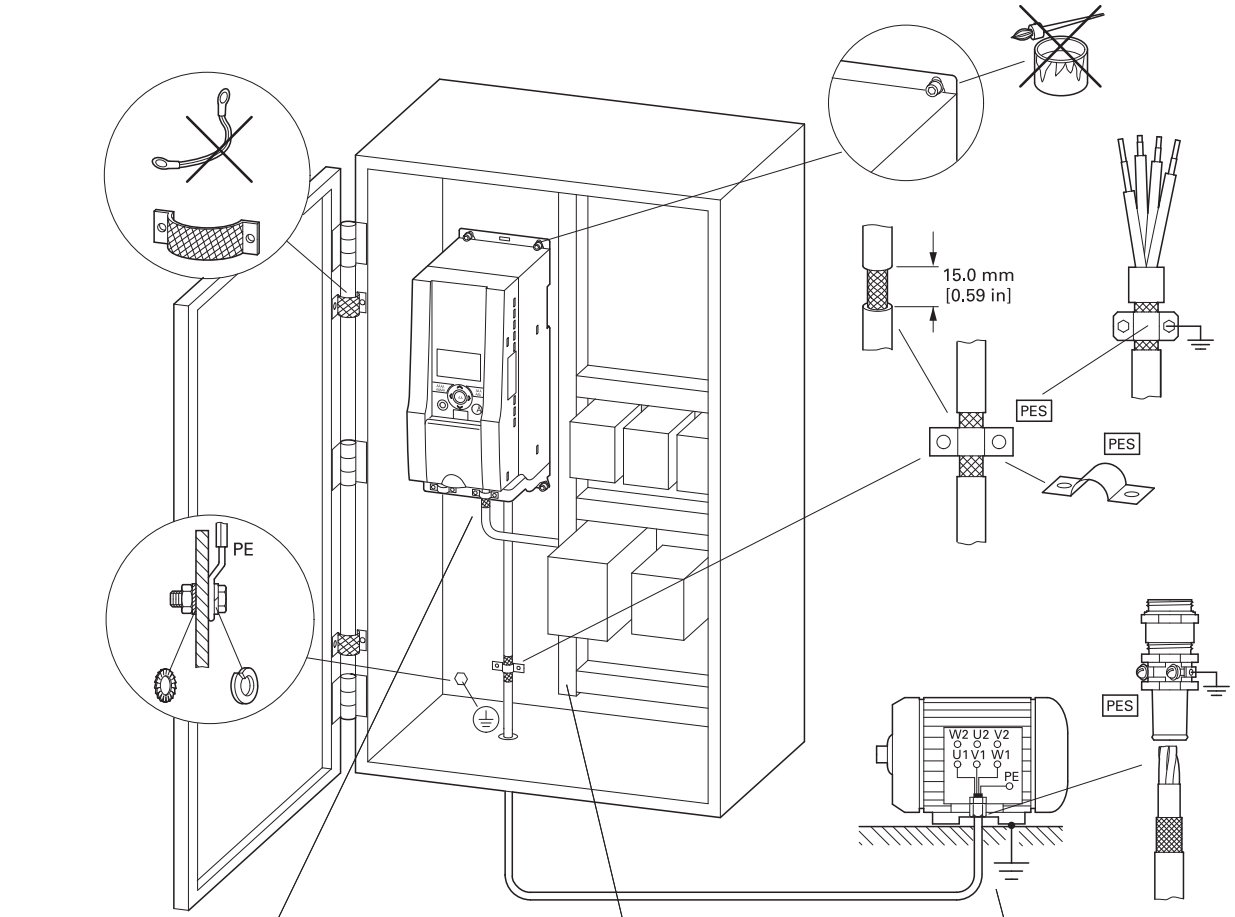


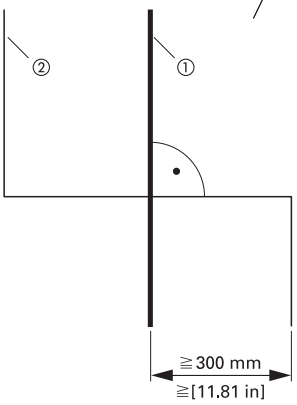
Maximum Cross-Sections

	L1, L2/N, L3		U, V, W		PE		R+, R—	
	mm^2	AWG ①	mm^2	AWG ①	mm^2	AWG ①	mm^2	AWG ①
VS1D7004B-M… VS2D4004B-M… VS2D8004B-M… VS3D7004B-M…	2 x 2.5	2 x 14	3 x 2.5	3 x 14	2.5	14	—	—
VS4D8004B-M…	2 x 6	2 x 10	3 x 6	3 x 10	—	—	—	—
VS1D7204B-M… VS2D4204B-M… VS2D8204B-M… VS3D7204B-M…	2 x 1.5	2 x 16	3 x 1.5	3 x 16	1.5	16	—	—
VS4D8204B-M… VS7D0204B-M…	2 x 2.5	2 x 14	3 x 2.5	3 x 14	2.5	14	—	—
VS9D6204B-M…	2 x 6	2 x 10	3 x 6	3 x 10	6	10	—	—
VS1D7203B-M… VS2D4203B-M… VS2D8203B-M… VS3D7203B-M…	3 x 1.5	3 x 16	3 x 1.5	3 x 16	1.5	16	—	—
VS4D8203B-M… VS7D0203B-M…	3 x 1.5	3 x 16	3 x 1.5	3 x 16	1.5	16	—	—
VS011203B-M…	3 x 2.5	3 x 14	3 x 2.5	3 x 14	2.5	14	2 x 2.5	2 x 14
VS017203B-M… VS025203B-M…	3 x 6	3 x 10	3 x 6	3 x 10	6	10	2 x 6	2 x 10
VS031203B-M… VS038203B-M…	3 x 10	3 x 8	3 x 8	3 x 8	10	8	2 x 10	2 x 8
VS1D3403B-M… VS1D9403B-M… VS2D4403B-M… VS3D3403B-M…	3 x 1.5	3 x 16	3 x 1.5	3 x 16	1.5	16	— 2 x 1.5	— 2 x 16
VS4D3403B-M… VS5D6403B-M…	3 x 1.5	3 x 16	3 x 1.5	3 x 16	1.5	16	2 x 1.5	2 x 16
VS7D6403B-M… VS9D0403B-M… VS012403B-M…	3 x 2.5	3 x 14	3 x 2.5	3 x 14	2.5	14	2 x 2.5	2 x 14
VS014403B-M…	3 x 4	3 x 12	3 x 12	3 x 12	4	12	3 x 4	2 x 12
VS016403B-M… VS023403B-M…	3 x 6	3 x 10	3 x 6	3 x 10	6	10	2 x 6	2 x 10
VS031403B-M…	3 x 10	3 x 8	3 x 8	3 x 8	10	8	2 x 10	2 x 8
VS038403B-M…	3 x 10	3 x 6	3 x 8	3 x 6	10	6	2 x 10	2 x 6
VS1D7503B-M… VS2D7503B-M…	3 x 1.5	3 x 16	3 x 1.5	3 x 16	1.5	16	2 x 1.5	2 x 16
VS3D9503B-M… VS6D1503B-M… VS9D0503B-M…	3 x 2.5	3 x 14	3 x 2.5	3 x 14	2.5	14	2 x 2.5	2 x 14

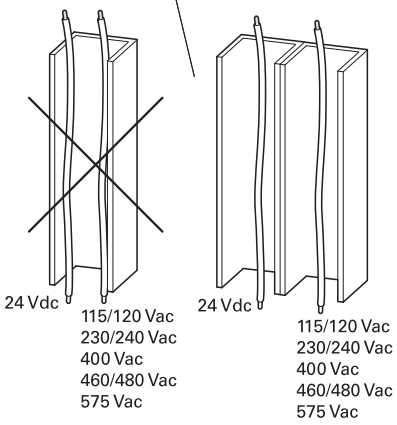
Notes

① AWG = American Wire Gauge.
② UL fuse with AWG.

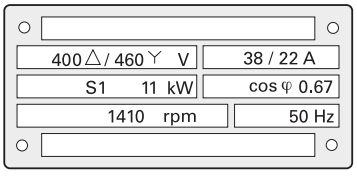


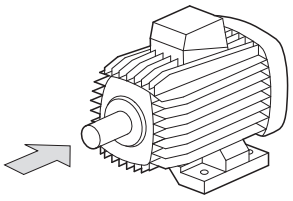


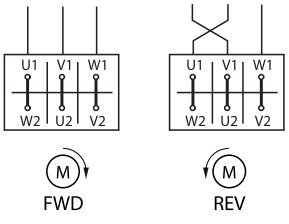
① L1, L2, L3, N, U, V, W, R+. R–
② 1, 2, … 26, A, B

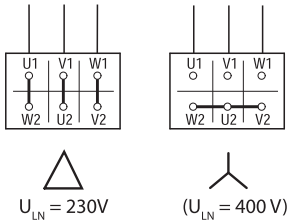


VSM II	Motor
U/T1U1	U/T1U1
V/T2V1	V/T2V1
W/T3W1	W/T3W1



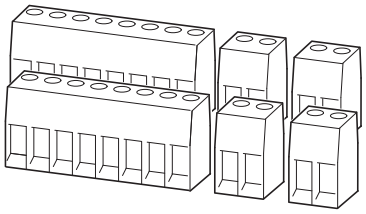


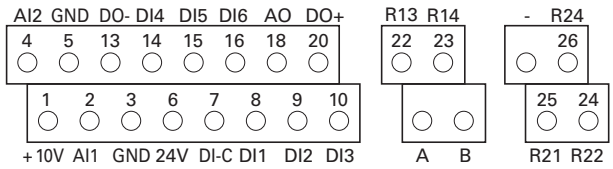


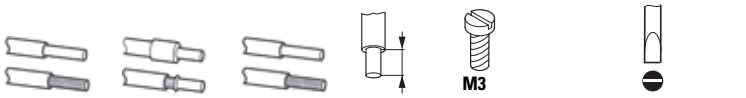


U_{LN} = 230V

(U_{LN} = 400 V)

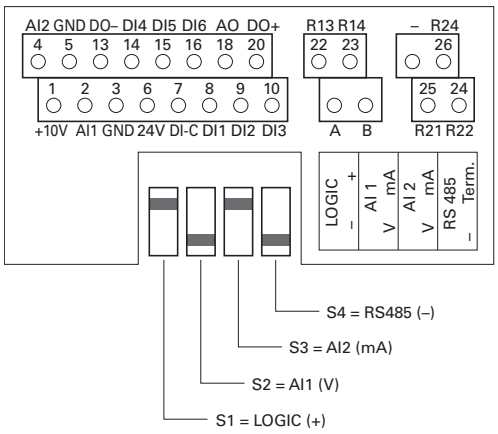






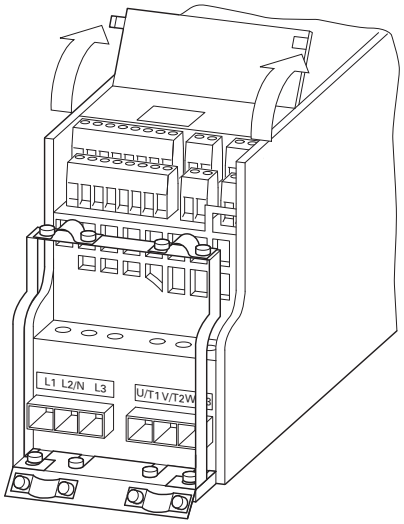
mm²	mm²	AWG	mm	Nm	ft-lbs	mm
0.25–0.5	0.14–1.5	26–16	5	0.22–0.25	0.16–0.18	0.4 x 2.5

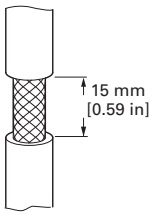
Microswitch Factory Settings

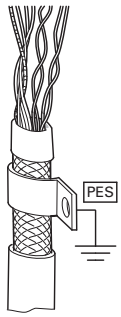


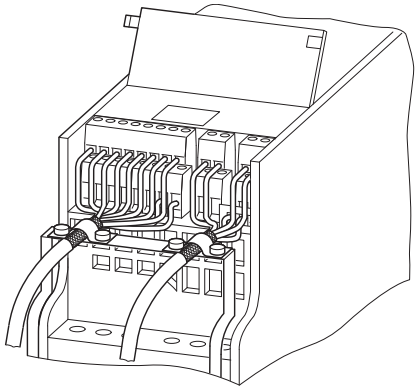
Microswitch Description

S1	LOGIC	Control logic: + = Positive logic (FS) Source type – = Negative logic Sink type
S2	AI1	Analog input 1 (P2.1): V = 0–10V (FS) mA = 4–20 mA
S3	AI2	Analog input 2 (P2.5): mA = 4–20 mA (FS) V = 0 –10V
S4	RS485	Bus terminating resistor (control signal terminal A/B): – = Disconnected Term. = Switched on (terminator)







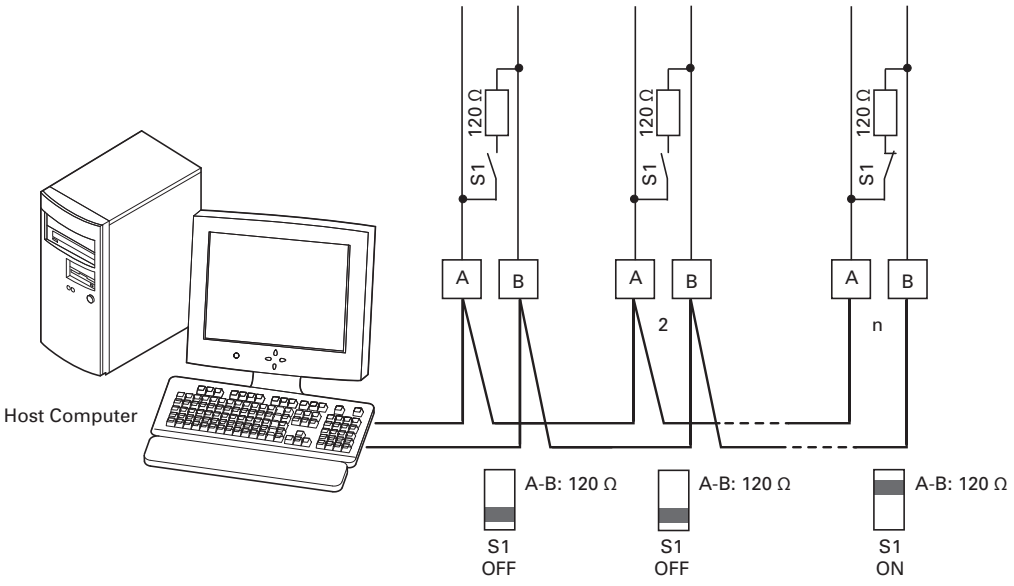


Factory-Set Control Terminal Functions

Terminal		Signal	Factory setting	Description
1	+10V	Output nominal voltage	—	Maximum load 10 mA, reference potential GND
2	AI1	Analog signal input 1	Frequency reference value ①	0–10V (R_i >200k ohms) 0/4–20 mA (R_B = 200 ohms) Selectable through microswitch S2
3	GND	Reference potential	—	0V
4	AI2	Analog input 2	PID controller, actual value ①	0–10V (R_i >200k ohms) 0/4–20 mA (R_B = 200 ohms) Selectable through microswitch S3
5	GND	Reference potential	—	0V
6	24V	Control voltage for DI1–DI6, output (+24V)	—	Maximum load 50 mA, reference potential GND
7	DI-C	Reference potential of the digital inputs DI1–DI6	LOGIC- (GND)	Selectable through microswitch LOGIC –/+
8	DI1	Digital input 1	FWD start enable, forward ①	0–30V (R_i >12k ohms)
9	DI2	Digital input 2	REV start enable, reverse ①	0–30V (R_i >12k ohms)
10	DI3	Digital input 3	Fixed frequency B0 ①	0–30V (R_i >12k ohms)
13	DO–	Digital output	Active = READY ①	Transistor, max. 50 mA, supply voltage control signal terminal 20
14	DI4	Digital input 4	Fixed frequency B1 ①	0–30V (R_i = 12k ohms)
15	DI5	Digital input 5	Error acknowledgment ①	0–30V (R_i = 12k ohms)
16	DI6	Digital input 6	PI controller deactivated ①	0–30V (R_i = 12k ohms)
18	AO	Analog output	Output frequency ①	0–10V, max. 10 mA
20	DO+	Digital output	Supply voltage, see control signal terminal 13	Supply voltage for digital output DO max. 48 Vdc, max. 50 mA
22	R13	Relay 1, normally open contact	Active = RUN ①	Maximum switching load: 250 Vac/2A or 250 Vdc/0.4A
23	R14	Relay 1, normally open contact	Active = RUN ①	Maximum switching load: 250 Vac/2A or 250 Vdc/0.4A
24	R22	Relay 2, changeover contact (N/C)	Active = FAULT ①	Maximum switching load: 250 Vac/2A or 250 Vdc/0.4A
25	R21	Relay 2, changeover contact	Active = FAULT ①	Maximum switching load: 250 Vac/2A or 250 Vdc/0.4A
26	R24	Relay 2, changeover contact (N/O)	Active = FAULT ①	Maximum switching load: 250 Vac/2A or 250 Vdc/0.4A
A	A	RS485 signal A	BUS-communication	Modbus RTU
B	B	RS485 signal B	BUS-communication	Modbus RTU

Note

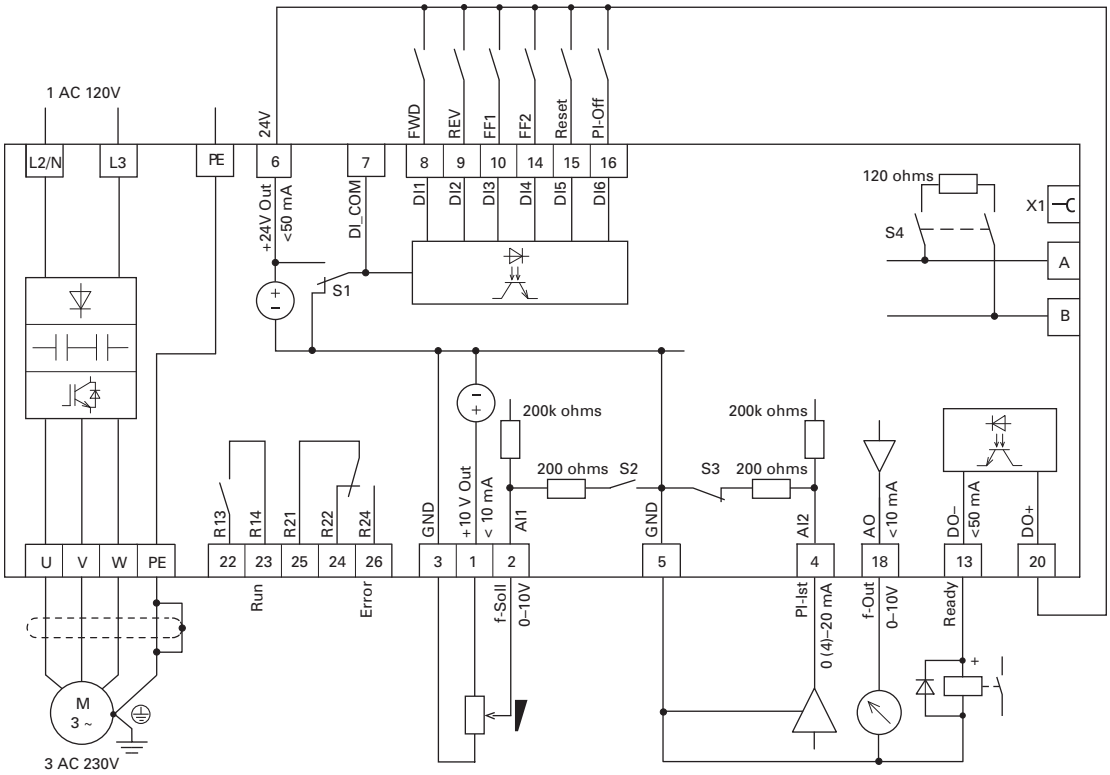
① Programmable function, see User Manual MN04020003E.



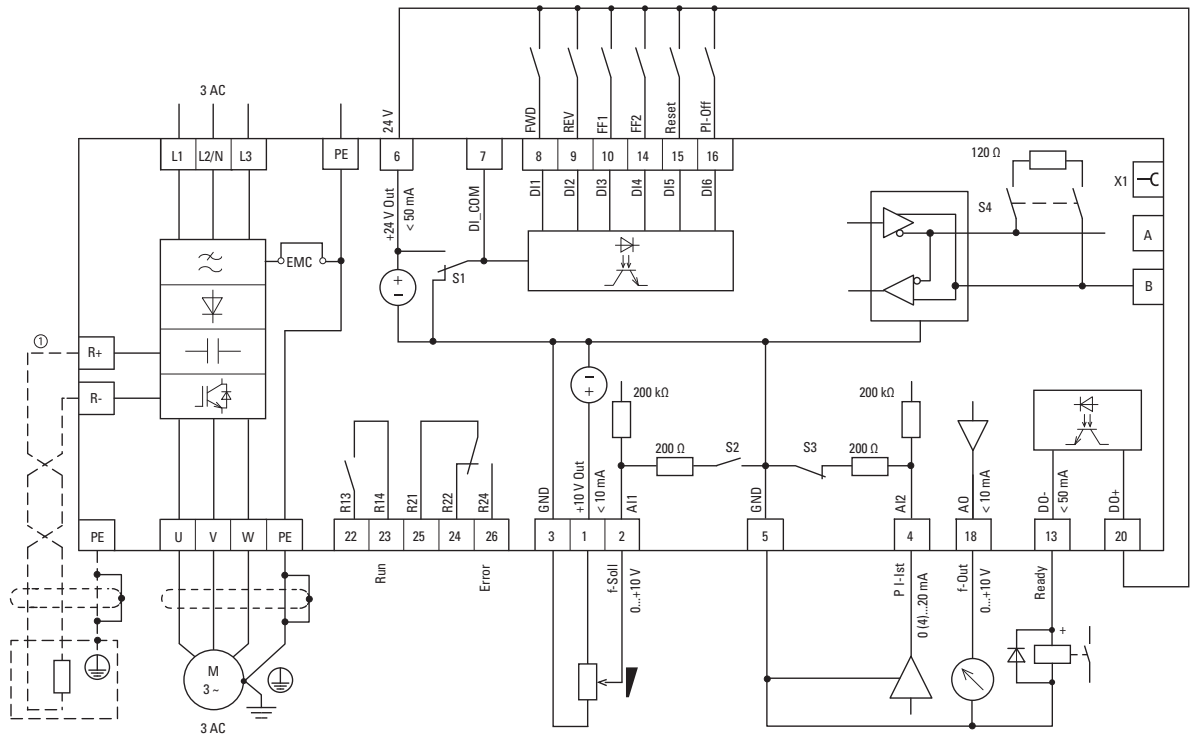
Caution!
In the territory of the EU Directive, the frequency-controlled devices and their accessories must be taken into operation only when the machine has been determined to fulfill the protection requirements of Machinery Safety Directive 89/392/EEC.

Ensure EMC-compliant installation. Lay control and communication cables spatially separated from the motor cable.
Ensure a large contact area connection between PES cable screen and PE.

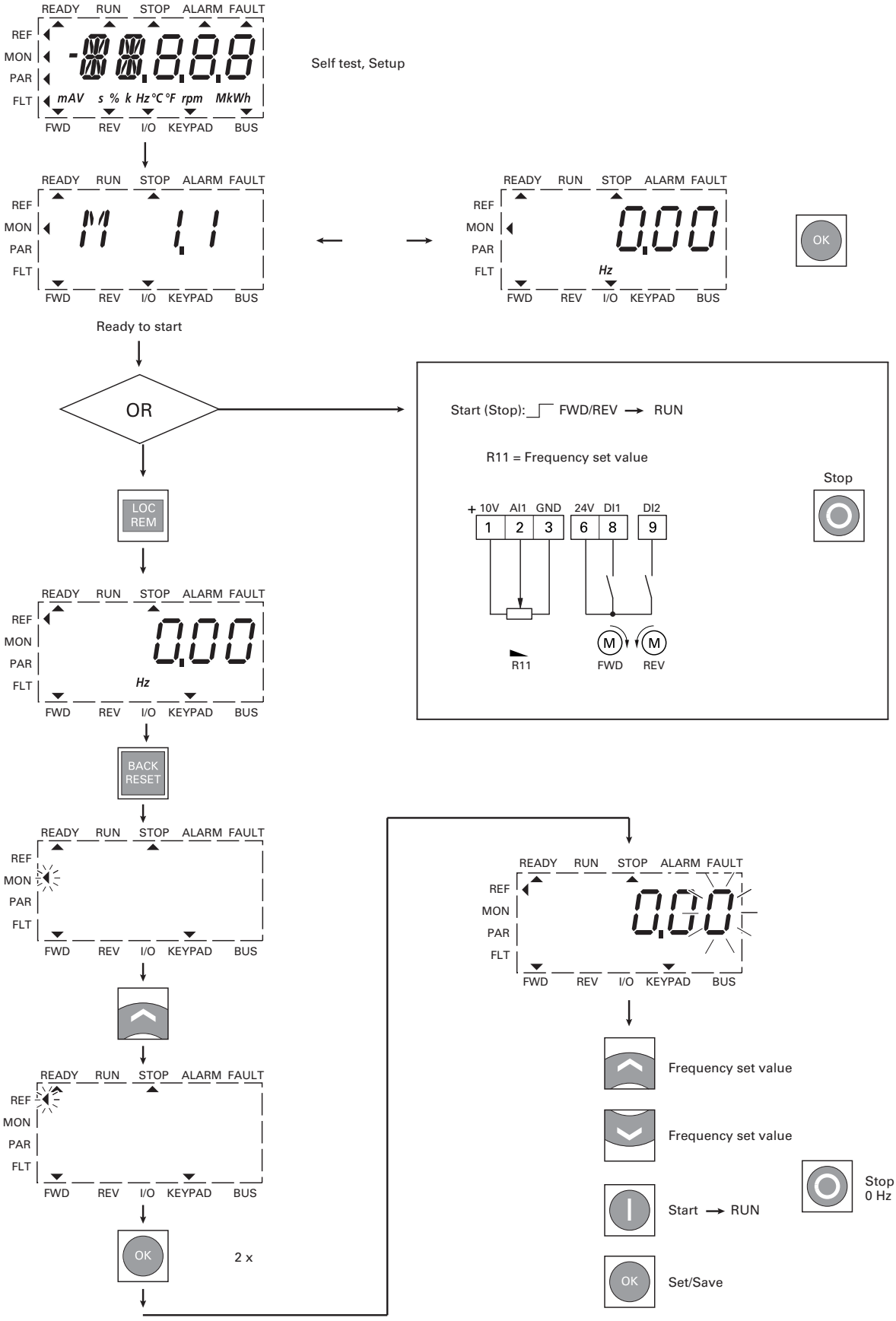
VSxxx0…, VSxxx2x4…



VSxxx2x3…, VSxxx4…, VSxxx5…



① VS4D3403B-M…, VS5D6403B-M…, VS7D6403B-M…, VS9D0403B-M…, VS012403B-M…, VS014403B-M…



Note: On startup for the first time, the VSM II will enter a Startup Wizard and will prompt the user to set a few critical parameters.

UL® Cautions, Warnings, and Instructions

Wiring Warnings for Electrical Practices and Wire Sizes

The cautions, warnings, and instructions in this section summarize the procedures necessary to ensure an inverter installation complies with Underwriters Laboratories® guidelines.

Warning!
Use 60/75°C Cu wire only or equivalent.

Warning!
Open Type Equipment.

Warning!
Suitable for use on a circuit capable of delivering not more than 5,000 rms symmetrical amperes:
- 120V maximum for VSxxx0 models.
- 240V maximum for VSxxx2x4 and VSxxx2x3 models.
- 480V maximum for VSxxx4 models.
- 575V maximum for VSxxx5 models.

Circuit Breaker and Fuse Sizes

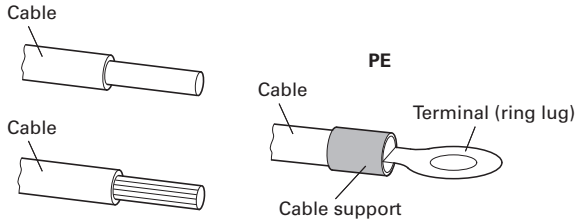
The adjustable frequency drive's connections to input power must include UL Listed inverse time circuit breakers with 600V rating, or UL Listed fuses.

Terminal Tightening Torque and Wire Size

The wire size range and tightening torque for field wiring terminals are presented.

Wire Connectors

Warning!
Field wiring connections must be made by a UL Listed and CSA Certified ring lug terminal connector sized for the wire gauge being used. The connector must be fixed using the crimping tool specified by the connector manufacturer.



Motor Overload Protection

VSM II adjustable frequency drives provide solid-state motor overload protection, which depends on the proper setting of the following parameter: P7.2 "current limit."

Set the rated current [Amperes] of the motor(s) with the above parameters. The setting range is 0.2 * rated current to 2 * rated current, → manual LIT-12011835.

Warning!
When two or more motors are connected to the inverter, they cannot be protected by the electronic overload protection. Install an external thermal relay on each motor.

Specified Fuses and Disconnect Devices

Part No. VSM II	Maximum Permitted Line Supply Voltage U_{LN} [V]	VDE [A]	UL [A] ①	Type Designation ②	Type Designation/Catalog No. ②
VS1D7004B-M…	1 AC 120V +10%	20	20	FAZ-B20/1N	—
VS2D4004B-M…	1 AC 120V +10%	20	20	FAZ-B20/1N	—
VS2D8004B-M…	1 AC 120V +10%	20	20	FAZ-B20/1N	—
VS3D7004B-M…	1 AC 120V +10%	20	20	FAZ-B20/1N	—
VS4D8004B-M…	1 AC 120V +10%	32	30	FAZ-B32/1N	—
VS1D7204B-M…	1 AC 240V +10%	10	10	FAZ-B10/1N	—
VS2D4204B-M…	1 AC 240V +10%	10	10	FAZ-B10/1N	—
VS2D8204B-M…	1 AC 240V +10%	10	10	FAZ-B10/1N	—
VS3D7204B-M…	1 AC 240V +10%	10	10	FAZ-B101/N	—
VS4D8204B-M…	1 AC 240V +10%	20	20	FAZ-B20/1N	—
VS7D0204B-M…	1 AC 240V +10%	20	20	FAZ-B20/1N	—
VS9D6204B-M…	1 AC 240V +10%	32	30	FAZ-B32/1N	—
VS1D7203B-M…	3 AC 240V +10%	6	6	FAZ-B6/3	PKM0-6.3/XTPM6P3BNL
VS2D4203B-M…	3 AC 240V +10%	6	6	FAZ-B6/3	PKM0-6.3/XTPM6P3BNL
VS2D8203B-M…	3 AC 240V +10%	6	6	FAZ-B6/3	PKM0-6.3/XTPM6P3BNL
VS3D7203B-M…	3 AC 240V +10%	6	6	FAZ-B6/3	PKM0-6.3/XTPM6P3BNL
VS4D8203B-M…	3 AC 240V +10%	10	10	FAZ-B10/3	PKM0-10/XTPM010BNL
VS7D0203B-M…	3 AC 240V +10%	10	10	FAZ-B10/3	PKM0-10/XTPM010BNL
VS011203B-M…	3 AC 240V +10%	20	20	FAZ-B20/3	PKM0-20/XTPM020BNL
VS017203B-M…	3 AC 240V +10%	25	25	FAZ-B25/3	PKM0-25/XTPM025BNL
VS025203B-M…	3 AC 240V +10%	32	40	FAZ-B32/3	PKM0-32/XTPM032BNL
VS031203B-M…	3 AC 240V +10%	40	40	FAZ-B40/3	PKM4-40/XTPM040BNL
VS038203B-M…	3 AC 240V +10%	50	50	FAZ-B50/3	PKM4-50/XTPM050BNL
VS1D3403B-M…	3 AC 480V +10%	6	6	FAZ-B6/3	PKM0-6.3/XTPM6P3BNL
VS1D9403B-M…	3 AC 480V +10%	6	6	FAZ-B6/3	PKM0-6.3/XTPM6P3BNL
VS2D4403B-M…	3 AC 480V +10%	6	6	FAZ-B6/3	PKM0-6.3/XTPM6P3BNL
VS3D3403B-M…	3 AC 480V +10%	6	6	FAZ-B6/3	PKM0-6.3/XTPM6P3BNL
VS4D3403B-M…	3 AC 480V +10%	10	10	FAZ-B10/3	PKM0-10/XTPM010BNL
VS5D6403B-M…	3 AC 480V +10%	10	10	FAZ-B10/3	PKM0-10/XTPM010BNL
VS7D6403B-M…	3 AC 480V +10%	20	20	FAZ-B20/3	PKM0-20/XTPM020BNL
VS9D0403B-M…	3 AC 480V +10%	20	20	FAZ-B20/3	PKM0-20/XTPM020BNL
VS012403B-M…	3 AC 480V +10%	20	20	FAZ-B20/3	PKM0-20/XTPM020BNL
VS014403B-M…	3 AC 480V +10%	25	25	FAZ-B25/3	PKM0-25/XTPM025BNL
VS016403B-M…	3 AC 480V +10%	25	25	FAZ-B25/3	PKM0-25/XTPM025BNL
VS023403B-M…	3 AC 480V +10%	32	40	FAZ-B32/3	PKM0-32/XTPM032BNL
VS031403B-M…	3 AC 480V +10%	40	40	FAZ-B40/3	PKM4-40/XTPM040BNL
VS038403B-M…	3 AC 480V +10%	50	50	FAZ-B50/3	PKM4-50/XTPM050BNL
VS1D7503B-M…	3 AC 575V +10%	6	6	FAZ-B6/3	PKM0-6.3/XTPM6P3BNL
VS2D7503B-M…	3 AC 575V +10%	6	6	FAZ-B6/3	PKM0-6.3/XTPM6P3BNL
VS3D9503B-M…	3 AC 575V +10%	6	6	FAZ-B6/3	PKM0-6.3/XTPM6P3BNL
VS6D1503B-M…	3 AC 575V +10%	10	10	FAZ-B10/3	PKM0-10/XTPM010BNL
VS9D0503B-M…	3 AC 575V +10%	20	20	FAZ-B20/3	PKM0-20/XTPM020BNL

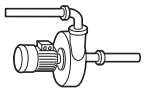
Notes

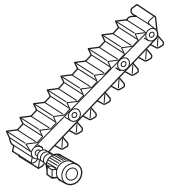
① Fuse UL-rated, Class J, 600V.

② I_{cn} 10 kA.

Quick Start Parameter Guide

Predefined Application Parameters from Parameter P1.2





Parameter (PNU)	Basic (Standard Drive)	Pump Drive	Fan Drive	High Load	Designation
P1.1	1 = Only quick configuration parameters	1 = Only quick configuration parameters	1 = Only quick configuration parameters	1 = Only quick configuration parameters	Quick start parameters
P1.2	0 = Basic	1 = Pump drive	2 = Fan drive	3 = Hoisting device (high load)	Application
P1.3	1 = N/A	1 = N/A	1 = N/A	1 = N/A	Country specific default settings
P6.1	1 = Control signal terminals (I/O) (I/O)	1 = Control signal terminals (I/O) (I/O)	1 = Control signal terminals (I/O) (I/O)	1 = Control signal terminals (I/O) (I/O)	Primary remote control source
P6.2	3 = AI1 (analog setpoint 1)	3 = AI1 (analog setpoint 1)	3 = AI1 (analog setpoint 1)	3 = AI1 (analog setpoint 1)	Primary remote speed reference
P6.3	00.00 Hz	20.00 Hz	20.00 Hz	00.00 Hz	Minimum frequency
P6.4	60.00 Hz	60.00 Hz	60.00 Hz	60.00 Hz	Maximum frequency
P6.5	3.0s	5.0s	20.0s	1.0s	Acceleration time (acc1)
P6.6	3.0s	5.0s	20.0s	1.0s	Deceleration time (dec1)
P6.7	0 = Ramp (acceleration)	0 = Ramp (acceleration)	0 = Ramp (acceleration)	0 = Ramp (acceleration)	Start function
P6.8	0 = Free coasting	1 = Deceleration time (ramp)	0 = Free coasting	0 = Free coasting	Stop function
P7.1	I_e	I_e	I_e	I_e	Motor, rated current
P7.3	1720 RPM	1720 RPM	1720 RPM	1720 RPM	Motor, rated speed (RPM)
P7.4	0.85	0.85	0.85	0.85	Motor, power factor (cos φ)
P7.5	230/460/575V	230/460/575V	230/460/575V	230/460/575V	Motor, rated operating voltage
P7.6	60 Hz	60 Hz	60 Hz	60 Hz	Motor, rated frequency
P11.7	0 = Deactivated	0 = Deactivated	0 = Deactivated	1 = Enabled	Torque increase
M1.1	0.00 Hz	0.00 Hz	0.00 Hz	0.00 Hz	Output frequency (display only)

Johnson Controls

Powered by **Eaton Technology**

Controls Group
507 E. Michigan Street
P.O. Box 423
Milwaukee, WI 53201

© 2013 Johnson Controls
All Rights Reserved
Printed in USA
Publication No. LIT-12011836 / Z13717
May 2013